

*kadaster*



Semantically enriching and  
reconstructing the cadastral  
map of the Netherlands – an  
LADM approach

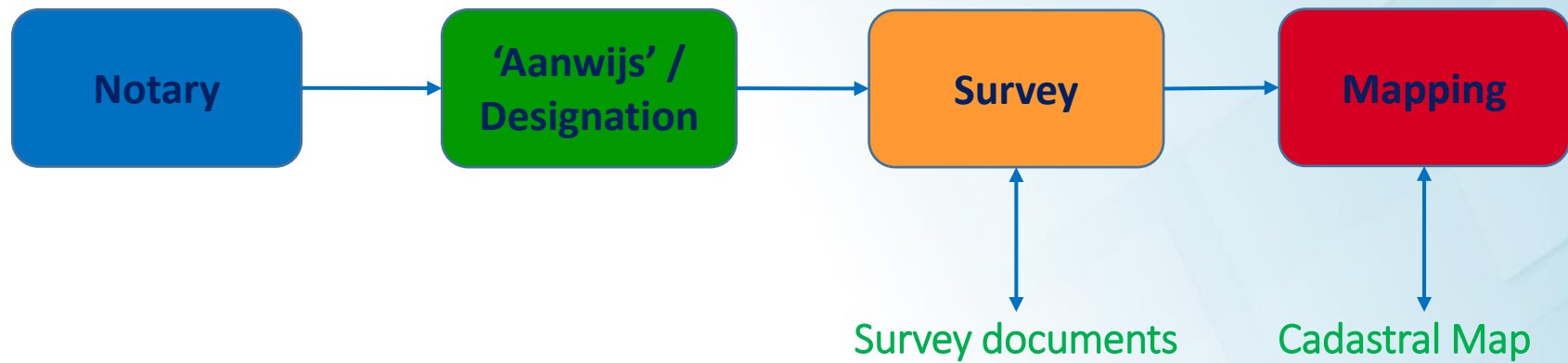
Pieter Soffers and Eric Hagemans

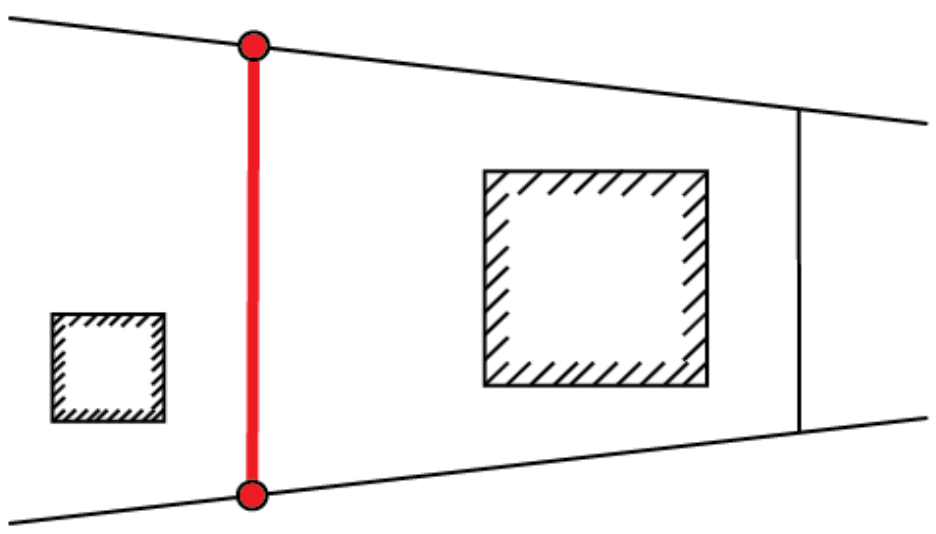
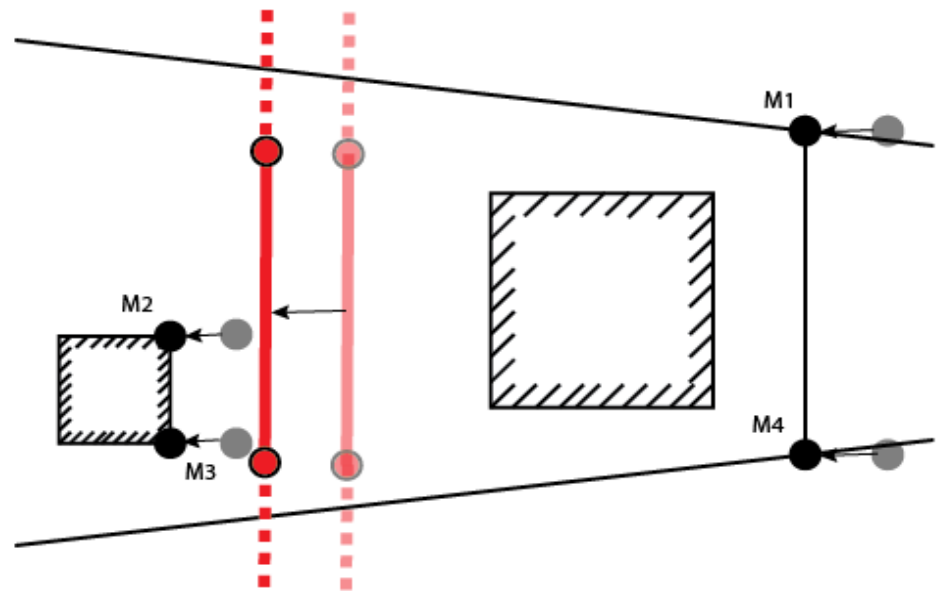
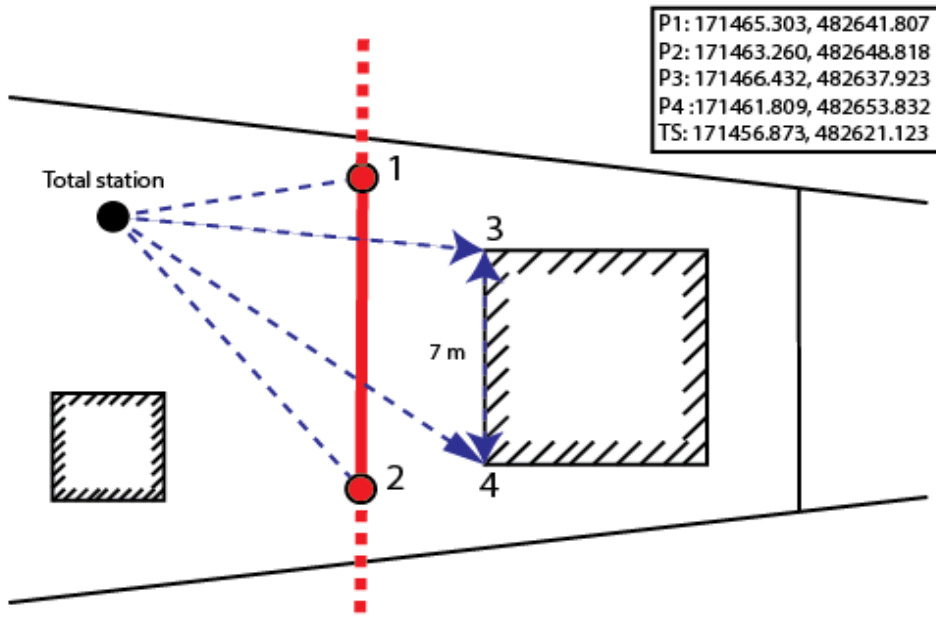
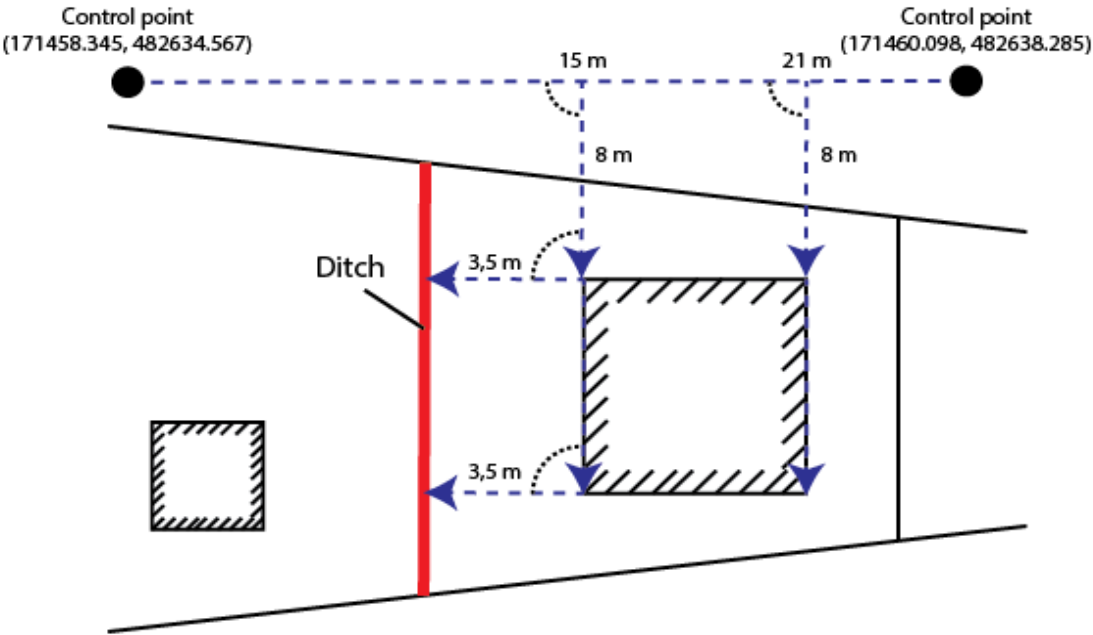
# The Dutch Cadastre



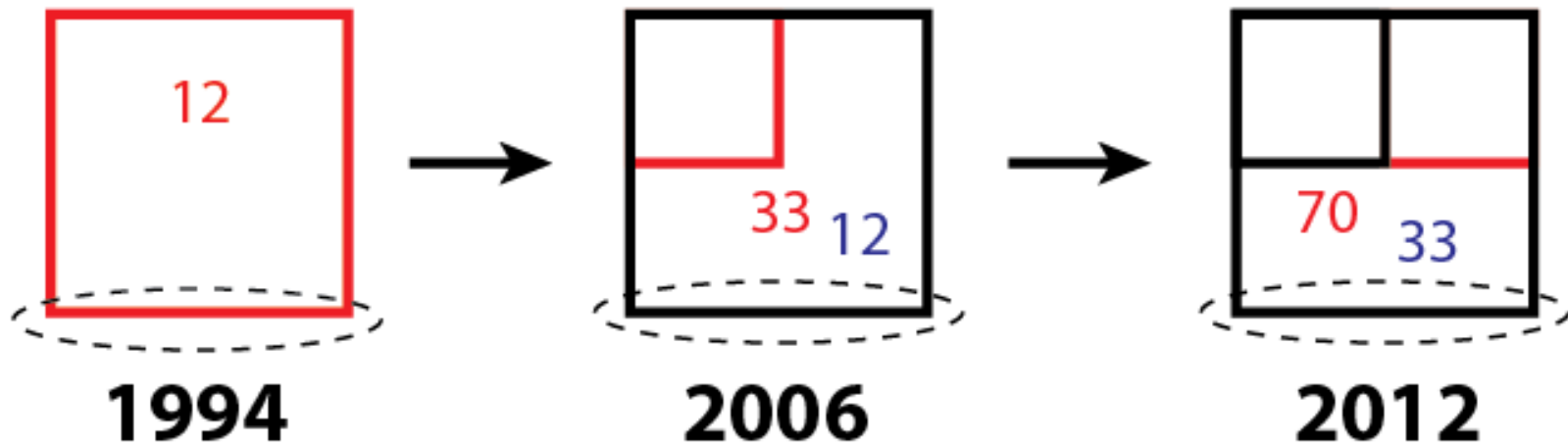
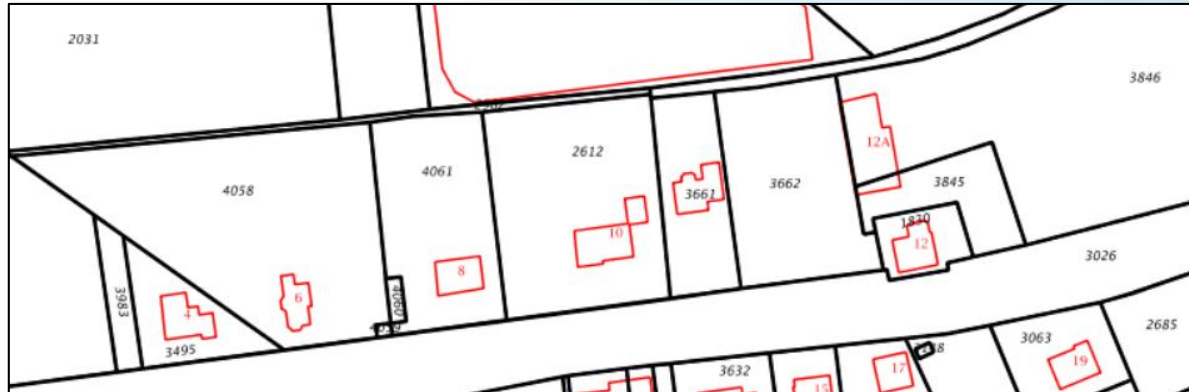
- Land registration
- Survey department

# Workflow





# The Dutch cadastral map



# The cadastral map improvement program

## Motivation:

- The cadastral map have to be more than just a visualization
- Better understanding and use of the cadastral map

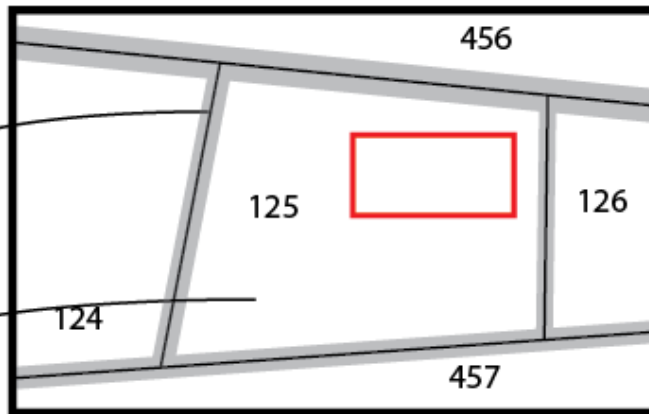
## Goals:

- Quality description and metadata of each boundary
- Geometrical correct location of a boundary

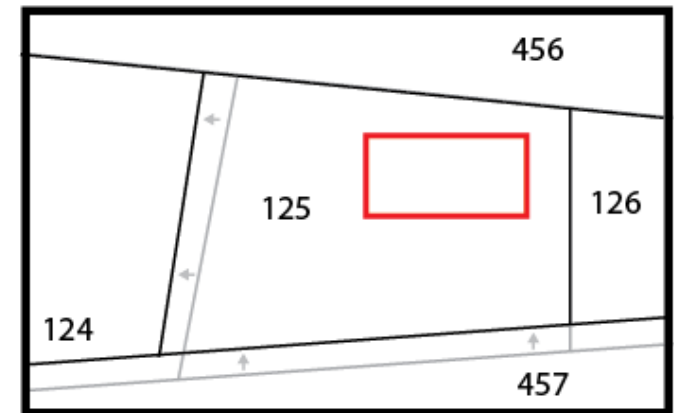
# The cadastral map improvement program

Boundary 345  
Quality D  
 $\sigma = 20/5 \text{ cm}$

Parcel 125  
Size =  $820 \text{ m}^2$   
 $\sigma = 10 \text{ m}^2$

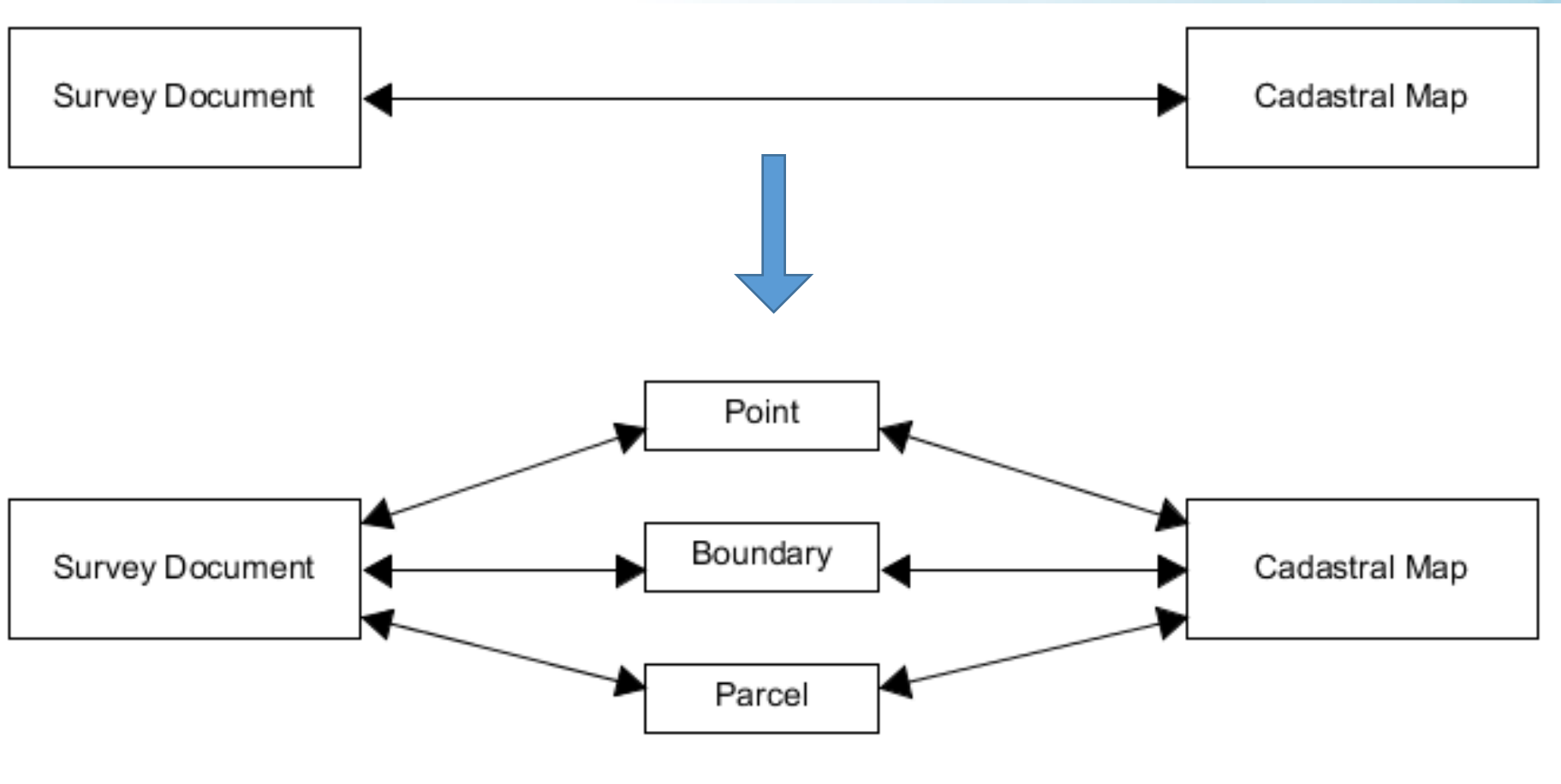


Cadastral *information* map  
with additional metadata



Cadastral *reconstruction* map  
integrated with survey

# Terrestrial registration





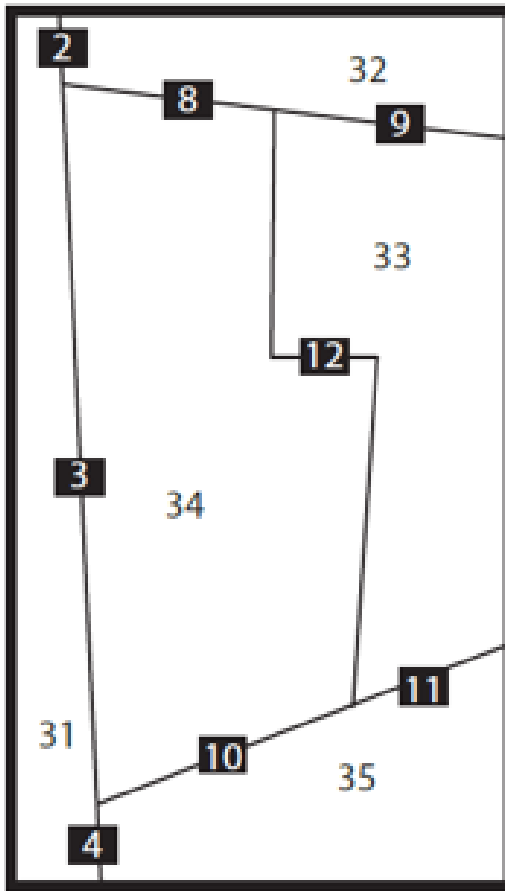
# Requirements

A direct connection between objects and survey documents.



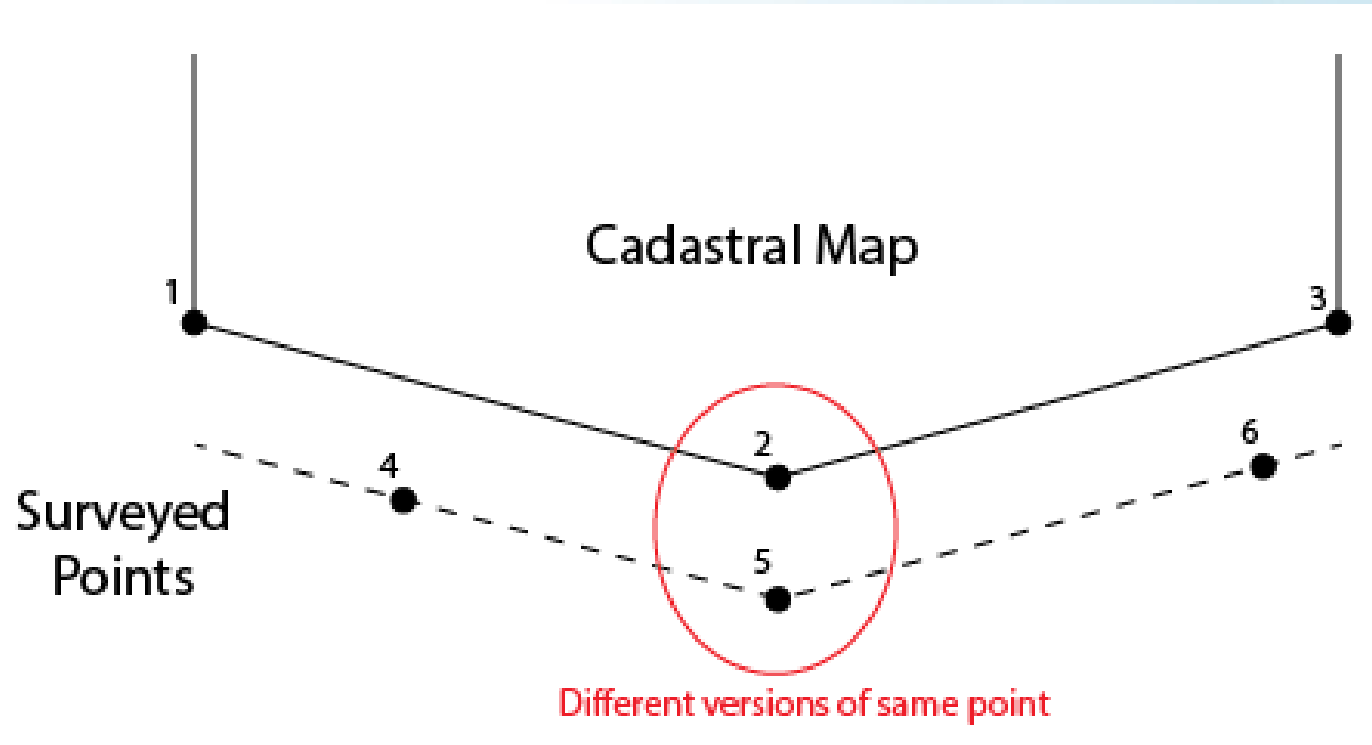
# Requirements

Boundaries should be considered as own entities.



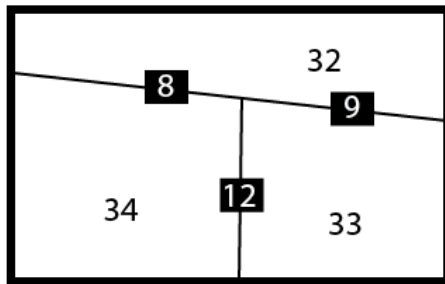
# Requirements

Points should be considered as own entities.

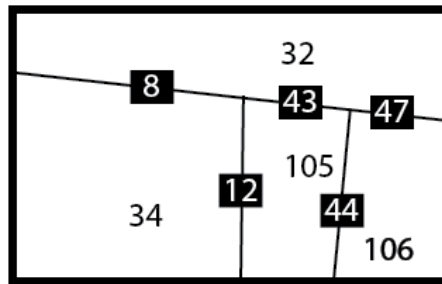


# Requirements

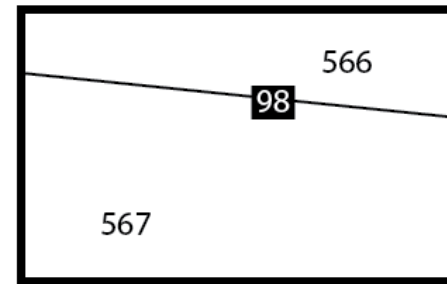
The data model should incorporate a history model.



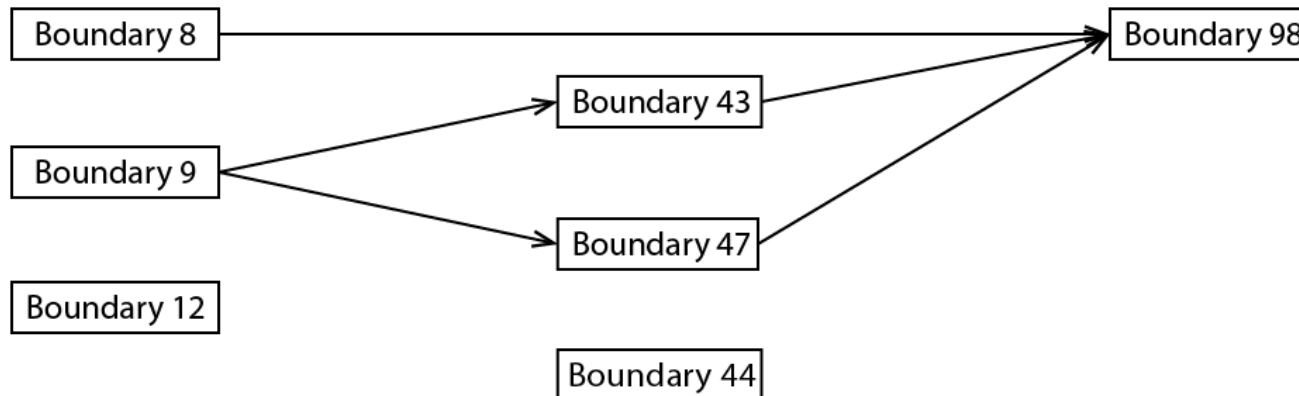
**Phase A**



**Phase B**



**Phase C**



# Requirements

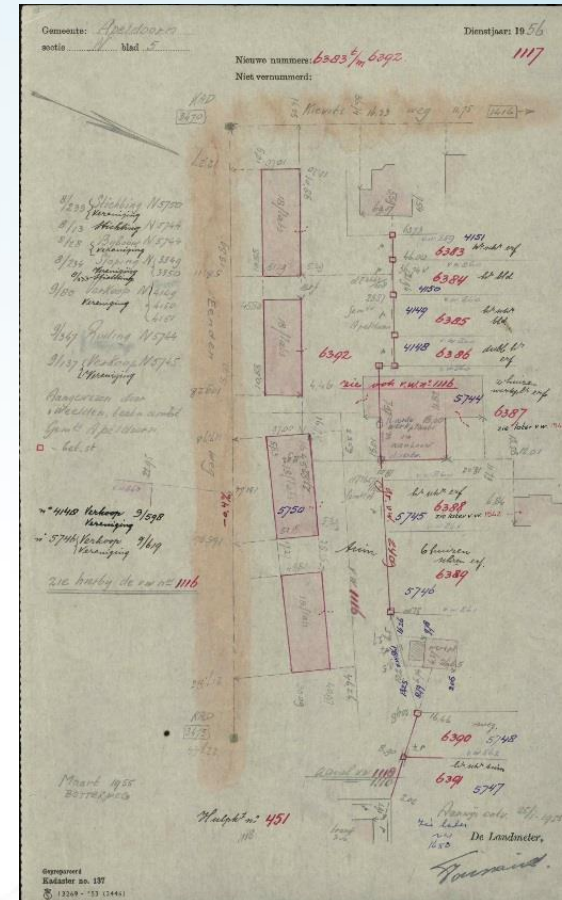
All survey methods should be incorporated in the data model.



# Requirements

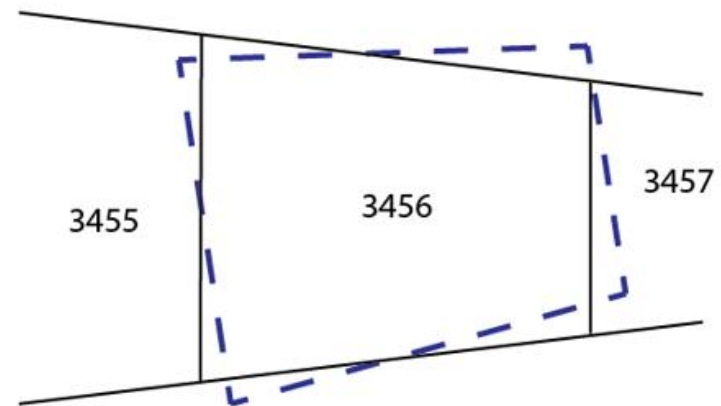
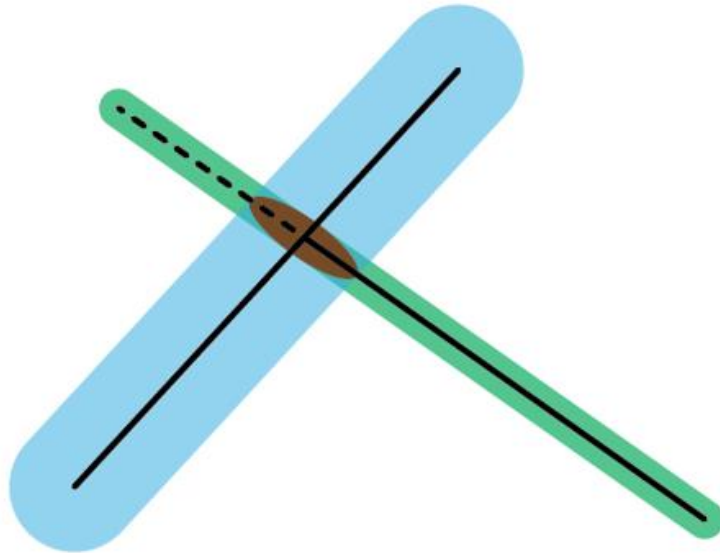
All document formats should be incorporated in the data model

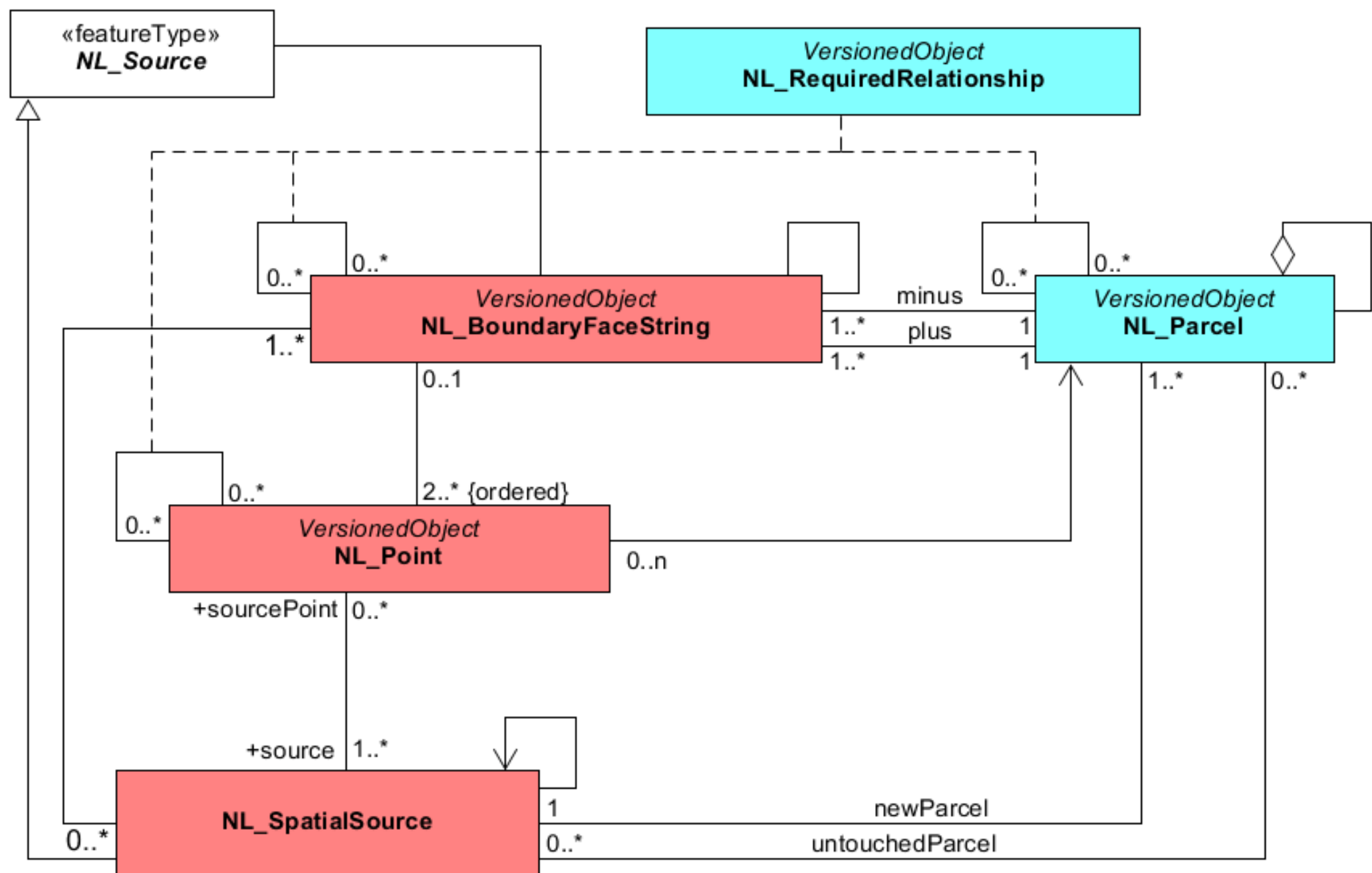
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# Requirements

The data model should facilitate quality descriptions per object







**Thank you for your attention!**

**Hvala na pozornosti!**